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(54) Title: USE OF METAL COMPLEX COMPOUNDS AS CATALYSTS FOR OXIDATION USING MOLECULAR OXYGEN OR AIR

(57) Abstract: Use, as a catalyst for oxidation reactions using molecular oxygen and/or air, of at least one metal complex compound of formula (1) wherein Me is manganese, titanium, iron, cobalt, nickel or copper, X is a coordinating or bridging radical, n and m are each independently of the other an integer having a value of from 1 to 8, p is an integer having a value of from 0 to 32, z is the charge of the metal complex, Y is a counter-ion, q = z/(charge of Y), and L is a ligand of formula (2) wherein R_1 , R_2 , R_3 , R_4 , R_5 , R_6 , R_7 , R_8 , R_9 , R_{10} and R_{11} are each independently of the others hydrogen; unsubstituted or substituted $C_1\text{-}C_{18}$ alkyl or aryl; cyano; halogen; nitro; -COOR₁₂ or -SO₃R₁₂ wherein R₁₂ is in each case hydrogen, a cation or unsubstituted or substituted C1-C18alkyl or aryl; -SR₁₃, -SO₂R₁₃ or -OR₁₃ wherein R₁₃ is in each case hydrogen or unsubstituted or substituted C1-C18alkyl

or aryl; $-NR_{14}R_{15}$; $-(C_1-C_6alkylene)-NR_{14}R_{15}$; $-N(^{+)}R_{14}R_{15}R_{16}$; $-(C_1-C_6alkylene)-N^{(+)}R_{14}R_{15}R_{16}$; $-N(R_{13})-(C_1-C_6alkylene)-NR_{14}R_{15}$; $-N(R_{13})-(R_{14}R_{15}R_{16})$ $-N[(C_1-C_6alkylene)-NR_{14}R_{15}]_2; -N(R_{13})-(C_1-C_6alkylene)-N^{(+)}R_{14}R_{15}R_{16}; -N[(C_1-C_6alkylene)-N^{(+)}R_{14}R_{15}R_{16}]_2; -N(R_{13})-N-R_{14}R_{15}R_{16}$ or -N(R₁₃)N"R₁₄R₁₅R₁₆, wherein R₁₃ is as defined above and R₁₄, R₁₅ and R₁₆ are each independently of the other(s) hydrogen or unsubstituted or substituted C₁-C₁₈alkyl or aryl, or R₁₄ and R₁₅, together with the nitrogen atom linking them, form an unsubstituted or substituted 5-, 6- or 7-membered ring which may contain further hetero atoms.

